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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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36257	7590	10/04/2005	EXAMINER	
PARSONS HSUE & DE RUNTZ LLP 595 MARKET STREET SUITE 1900 SAN FRANCISCO, CA 94105			TRAN, DZUNG D	
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			2638	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/560,224

Applicant(s)

HAMILTON ET AL.

Examiner

Dzung D. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16,17 and 19-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16,17 and 19-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The indicated allowability of claims 16, 17 and 19-29 is withdrawn in view of the newly discovered reference(s) to Schairer U.S. Patent no. 6,301,035 and Rosenberg U.S. Patent no. 5,506,445. Rejections based on the newly cited reference(s) follow.

Specification

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 16 and 17 are rejected under 35 U.S.C. 102(e) as being anticipated by Schairer U.S. Patent no. 6,301,035.

Regarding claim 16, Schairer discloses in Figure 1, a transceiver system for sending and receiving infrared signals comprising:

a circuit structure 5 (col. 2, line 33), defined by a front side and a back side:

at least one infrared emitting device 10 (col. 2, line 39) located on said front side:

at least one infrared detecting device 8 (col. 2, line 40) also located on said front

side:

a transceiver circuit device 6 (col. 2, lines 51-52) located on said front side;

said infrared detecting device 8 further comprising a front side and a back side, said infrared detecting device 8 back side aligned to face said front side of said circuit structure 5; said infrared emitting device 10 further comprising a back side, said infrared emitting device 10 back side aligned to face said infrared detecting device front side 8, whereby said infrared emitting device 10 and said infrared detection device 8 form an integrated infrared emitting and infrared detection device (see Fig. 1);

said integrated infrared emitting/infrared detection device is located on said front side of said transceiver circuit device 6 to form a transceiver/infrared emitting/infrared detection device stack S (col. 2, lines 50-54):

a primary lens element 16 (col. 3, lines 6-7) providing an optical path, said primary lens element 16 and said transceiver/infrared emitting/infrared detection device stack S cooperatively located such that said transceiver/infrared emitting/infrared detection device stack is aligned with said optical path

further comprising a secondary lens unit 2A (col. 3, line 7) aligned along said single optical path, the primary lens 16 located between the secondary lens 2A and the at least one infrared emitting device 10, the secondary lens unit 2A causing a ray to be refracted such that the angle of the ray with respect to the secondary lens is modified by passing through the lens (see Fig. 1).

Regarding claim 17, Schairer further discloses in Figure 1, a housing 17 (col. 3, line 1) encapsulating said transceiver/infrared emitting/infrared detection device stack.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 19-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schairer U.S. Patent no. 6,301,035 in view of Rosenberg U.S. Patent no. 5,506,445.

Regarding claim 19, Schairer discloses a process for sending and receiving infrared signals from an infrared transceiver assembly comprising a circuit structure 5 (col. 2, line 33) defining a first side and a second side, a transceiver circuit device, at least one infrared emitting device 10 and at least one infrared detection device 8, the steps comprising:

transmitting infrared signals by transmitting signals to said transceiver circuit device 6 (col. 2, lines 51-52), said transceiver circuit device 6 being located on said first side,

passing said signals through said transceiver circuit device 6 and to said infrared emitting device 10;

emitting infrared signals from said infrared emitting device 8;

receiving infrared signals by receiving infrared signals with said infrared detection device 8, said infrared emitting device being stacked upon said infrared detection device to form an integrated infrared emitting/detection device stack;

passing said received signals to said transceiver circuit device by bond wires 12 (col. 2, lines 45-49);

passing said received signals away from said transceiver circuit device by terminal pin 4 (col. 2, lines 32-33). Schairer differs from claim 19 of the invention in that he does not specifically disclose the transceiver circuit device 6 and infrared emitting device 8 is located on different side of circuit structure 5. Rosenberg, from the same field of endeavor, discloses an optical transceiver module, in that the transceiver 120 can be mounted to the PCB (or circuit structure) in any possible positions (col. 3, lines 11-13) and LED/phototransistor pairs could be incorporated into a single package and coupled to the leadframe and the IC in according with the design choices (col. 3, line 30 to col. 4, line 2). Therefore, it would have been obvious to an artisan at the time of the invention was made to implement the teaching of Rosenberg in the apparatus of Schairer that is design to have the transceiver circuit device 6 and infrared emitting device 8 is located on different side of circuit structure 5. One of ordinary skill in the art would have been motivated to do that in order to design a smaller infrared transceiver (e.g., even though the infrared transceiver of claim 1 is a better design than this one). Furthermore, the claimed exist (i.e., the transceiver circuit device 6 and infrared emitting device 8 is located on different side of circuit structure 5) not as a result of an attempt by applicant to solve a problem but merely amounts to selection of expedients known to the artisan of ordinary skill as design choices.

Regarding claim 20, Rosenberg discloses the circuit structure is a PCB (col. 2, lines 55, 63-66)

Regarding claims 21 and 25, Schairer discloses in figure 3, an optical communication device for transmitting and receiving optical communication signals, comprising:

- an optical receiving device 8 that receives a first optical signal at a first surface;
- an optical transmission device 10 that emits a second optical signal from a second surface,

- the first and second surfaces facing in a common direction (see Figure 3);
- a support element, the optical receiving device and the optical transmission device mounted to a first side of the support element (e.g., Figure 3 shown optical receiving device and optical transmission device is mounted on the same side).

Schairer differs from claim 19 of the invention in that he does not specifically disclose the transceiver circuit device 6 and infrared emitting device 8 is located on different side of support element 5. Rosenberg, from the same field of endeavor, discloses an optical transceiver module, in that the transceiver 120 can be mounted to the PCB (or support element) in any possible positions (col. 3, lines 11-13) and LED/phototransistor pairs could be incorporated into a single package and coupled to the leadframe and the IC in according with the design choices (col. 3, line 30 to col. 4, line 2). Therefore, it would have been obvious to an artisan at the time of the invention was made to implement the teaching of Rosenberg in the apparatus of Schairer that is design to have the transceiver circuit device 6 and infrared emitting device 8 is located on different side of support element. One of ordinary skill in the art would have been motivated to do that in order to design a smaller infrared transceiver (e.g., even though

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the infrared transceiver of claim 1 is a better design than this one). Furthermore, the claimed exist (i.e., the transceiver circuit device 6 and infrared emitting device 8 is located on different side of circuit structure 5) not as a result of an attempt by applicant to solve a problem but merely amounts to selection of expedients known to the artisan of ordinary skill as design choices.

Regarding claim 22, Rosenberg discloses the support element is a PCB (col. 2, lines 55, 63-66)

Regarding claim 23, Rosenberg discloses in Figure 3, the optical receiving device and the optical transmission device are both directly mounted to the first side of the support element and are spaced apart along the first side of the support element

Regarding claim 24, Rosenberg discloses in Figure 1, the optical transmission device 10 is mounted on the optical receiving device 8 and the optical receiving device is mounted on the first side of the support element.

Regarding claim 26, Rosenberg discloses in Figure 1, the transceiver device has a circuit 6 on a third surface, the third surface facing away from the second side of the support element 5.

Regarding claim 27, Rosenberg discloses in Figure 3, a transmission lens 2' that passes a ray from the optical transmission device 10.

Regarding claim 28, Rosenberg discloses in Figure 3, a receiving lens 2'' that passes a ray to the optical receiving device 8.

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Regarding claim 29, Rosenberg discloses in Figure 1, a single lens 2A that passes a first ray from the optical transmission device 10 and passes a second ray to the optical receiving device 8.

6. Applicant's arguments with respect to claims 16, 17 and 19-29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dzung D Tran whose telephone number is (571) 272-3025. The examiner can normally be reached on 9:00 AM - 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye, can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Dzung Tran
09/26/2005